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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,725	01/05/2004	William Robert Ouellette	8222D	2250

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EXAMINER	
TORRES VELAZQUEZ, NORCA LIZ	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/751,725	OUELLETTE ET AL.	
	Examiner	Art Unit	
	Norca L. Torres-Velazquez	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3 and 10-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3 and 10-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20306*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the prior art of TERADA (5,693,420) have been fully considered and are persuasive. The rejection over TERADA in view of MAYS has been withdrawn. Terada fuses the conjugate fibers throughout the entire thickness of the web. (Col. 5, lines 1-12)

2. Applicant's arguments filed December 02, 2005 have been fully considered but they are not persuasive.

a. Applicants have amended independent claim 1 to recite "*said bicomponent fibers are present at said top and bottom surfaces and in the center region*"; Applicants further indicate that support for the amendment is found in the specification at page 3, line 29 – page 4, line 2; page 5 lines 5 and 10; and page 14, lines 7-11 (including Figures 1 and 2).

It is noted herein that the cited portions of the specification provided as support for the amendment provide support for an entangled web of synthetic fibers, the web having a top surface and a bottom surface, wherein at least one of said top surface and bottom surface are surface bonded. The cited portions of the specification further provide support for webs that comprise a plurality of synthetic fibers, preferably polymeric fibers, and Figure 1 shows a web 10 has a top surface 12, having a thin thermally bonded layer 13 and bottom surface 12 having a thin thermally bonded layer 15.

It is the Examiner's interpretation that the specification indicates that the webs comprises at least about 55% by weight bicomponent fibers (as described in the Patent Application Publication 2004/0137211A1, [0029]); but the specification does not provide

support for the claimed limitation indicating that these fibers are present in each of the claimed portions.

b. With regards to arguments indicating that the MAYS reference discloses conjugate or bicomponent fibers only in the surface layers of the web, with a center layer of "base fibers"; and further that MAYS does not disclose bicomponent fibers for use as base fibers; it is the Examiner's interpretation that the particular applications of the MAYS reference are concerned to products including towels, wipes, covers for absorbent products, among others; which are Applications that need to maintain an acceptable degree of absorbency and the inclusion of bicomponent fibers to the surfaces would solve pilling and fraying problems in this type of fabrics. However, it is the Examiner's position that using bicomponent fibers in the center portion of such fabric would have been obvious in applications in which absorbency is not a main requirement and the fabric requires a higher degree of strength and durability. It is further noted that the presence of bicomponent fibers in the center portion of a web when these are introduced in the web before entanglement would depend on the degree of penetration of the entanglement process.

c. Arguments regarding the rejection of claims 10-13 under 35 USC 103(a) over MAYS in view of BRASSINGTON have been considered, however, these are addressed in the section (b) above.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3 and 10-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

5. Claims 1, 3 and 10-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification provides support for an entangled web of synthetic fibers, the web having a top surface and a bottom surface, wherein at least one of said top surface and bottom surface are surface bonded. The Specification further indicates that the webs comprises at least about 55% by weight bicomponent fibers (as described in the Patent Application Publication 2004/0137211A1, [0029]); but the specification does not provide support for the claimed limitation indicating that these fibers are present in each of the claimed portions nor it enables one skilled in the art to make a web with the particular limitation of including bicomponent fibers in the center region.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over MAYS (EP 0171807 A2) further evidenced by MAGNUSSON (WO 99/00098).

MAYS discloses an entangled nonwoven fabric having a layer of fusible fibers on one or both surfaces of a relatively thick layer of base fibers. The fusible fibers can be conjugate fibers. The thermoplastic fibers are located on the outer surface of the base fibers either prior to or subsequent to the entangling of the fibers. (Abstract) The reference teaches the use of polyolefin fibers with a melting temperature in the range of about 163-171 °C as thermoplastic fusible fibers. (Page 4, lines 23-26) MAYS shows in Figure 5 shows a layer of conjugate fibers 80 provided at both surfaces of a layer of base fibers 82 and entangled therewith. After heat treatment to thermobond the conjugate fibers to each other and to the base fibers, the fabric is provided with reinforced surfaces 84 and 86, each comprising thermobonded entangled network of conjugate fibers and base fibers. (Page 15, lines 21-30; Figure 5) It is the Examiner's interpretation that the present invention as claimed does not preclude the inclusion of the base fibers of the MAYS reference and that the entangled and thermally bonded product shown in Figure 5 of the reference is considered to be a "one ply" web.

The reference teaches entangling the fabric and then passing it through a heating means where the low melting point component of the conjugate fibers is melted and bonding occurs at the

point of intersection and tangency of the conjugate fibers. With this reinforcing of the outer surfaces by the bonding of the conjugate fiber to each other, the outer surfaces of the fabric are stronger and pilling and fraying is substantially decreased if not eliminated, without effecting the basic fabric characteristics, such as absorbency, of the base layer. (Page 6, line 31 through Page 7, lines 1-5) The reference teaches the use of sheath/core bicomponent fibers and also side-by-side conjugate fibers. (Page 9, lines 29-32) The reference teaches the use of fibers with lengths in excess of about 0.25 inches (0.635 cm) up to about 3 inches (7 cm). (Page 9, lines 35-36) In Figure 5, the reference shows a fabric with thermobonded fusible fibers in the surfaces. It is further noted that on page 14, lines 24-29 of the MAYS reference, the reference teaches that depending on the surface strength desired, the fiber content ratio of the fabric could be as low as 90 percent polyester, 10 percent conjugate fiber, and as high as 10 percent polyester and 90 percent conjugate fiber.

It is the Examiner's position that the MAYS reference provides the entangled synthetic fibers structure with a center region fibers not thermally bonded in the center region and with thermal bonding in the top and bottom surface. The reference meets the limitation of the fibers being bicomponent fibers of the sheath-core or side-by-side type. It is noted that eccentric bicomponent fibers are known in the art as a type of side-by-side bicomponent fiber. This is evidenced by MAGNUSSON that teaches an absorbent article that uses thermoplastic bicomponent fibers of a side-by-side type. In Figure 2, the reference shows different types of side-by-side bicomponent fibers. Figure 2c is a bicomponent of an eccentric type. (Page 4, lines 1-11) It is the Examiner's position that MAYS teachings include side-by-side bicomponent

fibers and this teaching is interpreted as being inclusive of all the different possible structures known in the art and evidenced by MAGNUSSON.

Further, it is noted that the particular applications of the MAYS reference are concerned to products including towels, wipes, covers for absorbent products, among others; which are Applications that need to maintain an acceptable degree of absorbency and the inclusion of bicomponent fibers to the surfaces would solve pilling and fraying problems in this type of fabrics. However, it is the Examiner's position that using bicomponent fibers in the center portion of such fabric would have been obvious in applications in which absorbency is not a main requirement and the fabric requires a higher degree of strength and durability. It is further noted that the presence of bicomponent fibers in the center portion of a web when these are introduced in the web before entanglement would depend on the degree of penetration of the entanglement process. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the web and provide it with bicomponent fibers in the center portion with the motivation of producing a material with a higher degree of strength and durability.

It is noted that although the prior art or record does not explicitly teach the claimed Ambient Temperature Oil Absorbency it is reasonable to presume that this property is inherent to the nonwoven fabric of MAYS. Support for said presumption is found in the use of like materials (i.e. a nonwoven of entangled bicomponent fibers that is heat bonded at the top and bottom surfaces; the fabric can have a fiber content ratio of 10 percent polyester and 90 percent conjugate fiber). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of Ambient Temperature Oil Absorbency of at

least about 7g/g would obviously have been present one the MAYS product is provided. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

8. **Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over MAYS as applied to claims 1 and 3 above and further in view of BRASSINGTON (WO 93/22486).**

MAYS is silent to the density of the nonwoven web.

BRASSINGTON is concerned with an absorbent material suitable for use in medical or hygienic applications. (Page 1, first paragraph) The reference teaches the use of bicomponent fibers (Page 3, line 17), and uses similar methods of bonding the fabric (Page 4, lines 20-24). On page 9, lines 29-31; the reference teaches that the fabric web has a weight of 165 g/m^2 and a thickness of around 3.5 mm. The Examiner has calculated the density of the fabric disclosed by the reference based on the weight and thickness of the web and it provides a density of 47.14 mg/m^3. This values reads on the presently claimed density of about 100 mg/m^3 or less. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the web of MAYS and provide it with a density of 47 mg/m^3 as in the BRASSINGTON reference motivated by the desire to produce a web with a density that is acceptable with applications such as medical or hygienic absorbent products.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

February 15, 2006